

**§ 250.418 What additional information must I submit with my APD?**

You must include the following with the APD:

- (a) Rated capacities of the drilling rig and major drilling equipment, if not already on file with the appropriate District office;
- (b) A drilling fluids program that includes the minimum quantities of drilling fluids and drilling fluid materials, including weight materials, to be kept at the site;
- (c) A proposed directional plot if the well is to be directionally drilled;
- (d) A Hydrogen Sulfide Contingency Plan (see § 250.490), if applicable, and not previously submitted;
- (e) A welding plan (see §§ 250.109 to 250.113) if not previously submitted;
- (f) In areas subject to subfreezing conditions, evidence that the drilling equipment, BOP systems and components, diverter systems, and other associated equipment and materials are suitable for operating under such conditions;
- (g) A request for approval if you plan to wash out below the mudline or displace some cement to facilitate casing removal upon well abandonment;
- (h) Certification of your casing and cementing program as required in § 250.420(a)(6);
- (i) Descriptions of qualifications required by § 250.416(g) of the independent third-party; and
- (j) Such other information as the District Manager may require.

[76 FR 64462, Oct. 18, 2011, as amended at 77 FR 50892, Aug. 22, 2012]

**CASING AND CEMENTING REQUIREMENTS**

**§ 250.420 What well casing and cementing requirements must I meet?**

You must case and cement all wells. Your casing and cementing programs must meet the requirements of this section and of §§ 250.421 through 250.428.

(a) *Casing and cementing program requirements.* Your casing and cementing programs must:

- (1) Properly control formation pressures and fluids;
- (2) Prevent the direct or indirect release of fluids from any stratum through the wellbore into offshore waters;

(3) Prevent communication between separate hydrocarbon-bearing strata;

(4) Protect freshwater aquifers from contamination;

(5) Support unconsolidated sediments; and

(6)(i) Include a certification signed by a registered professional engineer that the casing and cementing design is appropriate for the purpose for which it is intended under expected wellbore conditions, and is sufficient to satisfy the tests and requirements of this section and § 250.423. Submit this certification with your APD (Form BSEE-0123).

(ii) You must have the registered professional engineer involved in the casing and cementing design process.

(iii) The registered professional engineer must be registered in a state of the United States and have sufficient expertise and experience to perform the certification.

(b) *Casing requirements.* (1) You must design casing (including liners) to withstand the anticipated stresses imposed by tensile, compressive, and buckling loads; burst and collapse pressures; thermal effects; and combinations thereof.

(2) The casing design must include safety measures that ensure well control during drilling and safe operations during the life of the well.

(3) On all wells that use subsea BOP stacks, you must include two independent barriers, including one mechanical barrier, in each annular flow path (examples of barriers include, but are not limited to, primary cement job and seal assembly). For the final casing string (or liner if it is your final string), you must install one mechanical barrier in addition to cement to prevent flow in the event of a failure in the cement. A dual float valve, by itself, is not considered a mechanical barrier. These barriers cannot be modified prior to or during completion or abandonment operations. The BSEE District Manager may approve alternative options under § 250.141. You must submit documentation of this installation to BSEE in the End-of-Operations Report (Form BSEE-0125).

(c) *Cementing requirements.* You must design and conduct your cementing jobs so that cement composition, placement techniques, and waiting